

Claims

1. A hinge mechanism, for a folding casing of an electric device consisting of at least two casing parts, each of said casing parts including electric components,  
5 comprising:  
- at least a hinge body component; and  
- flexible electrical conductor means for connecting said electric components included by different casing parts;  
wherein said hinge body component provides two pivot axes, which are separated  
10 at a predefined distance;  
and said hinge body component provides a passage for accepting said flexible electrical conductor means.
2. The hinge mechanism according to claim 1, wherein a total pivot angle results  
15 from summation of individual pivot angles about each of which said respective pivot axis is pivoted.
3. The hinge mechanism according to claim 1, wherein each pivot axis is pivoted  
20 independently.
4. The hinge mechanism according to claim 1, wherein said bending of said flexible electrical conductor means is obtained in a plane substantially perpendicular to said pivot axes.
- 25 5. The hinge mechanism according to claim 1, further comprising:  
- inner hinge cover component;  
wherein said inner hinge cover component is designed to fit into said hinge body component such that said hinge body component in conjunction with said inner hinge cover component forms said passage and said flexible electrical conductor  
30 means is enclosed by said hinge body component and said inner hinge cover component.
6. The hinge mechanism according to claim 1, further comprising:  
- a set of brackets;  
35 wherein said brackets are provided for being mounted to said at least two casing parts;

wherein said brackets engage in said hinge body component such that said two pivot axes are established thereby.

- 5 7. The hinge mechanism according to claim 1, wherein said brackets have journal members which interact with journal acceptance members provided in the hinge body component to establish said pivot axes.
- 10 8. The hinge mechanism according to claim 1, wherein said flexible electrical conductor means are freely movable within said hinge mechanism to allow compensation of shortening and extension of said flexible electrical conductor means caused by bending thereof due to pivoting.
- 15 9. The hinge mechanism according to claim 1, wherein said flexible electrical conductor means are routed substantially tangential to end portions of said hinge body component in a close position of said folding casing.
- 20 10. The hinge mechanism according to claim 1, wherein said flexible electrical conductor means are routed substantially at bending angles against end portions of said hinge body component in an open position of said folding casing; wherein said bending angles correspond to said individual pivot angles.
- 25 11. An electric device with a folding casing being constituted by at least two casing parts, which are joined by a hinge mechanism comprising:
  - at least a hinge body component; and
  - 30 - flexible electrical conductor means for connecting said electric components included by different casing parts;wherein said hinge body component provides two pivot axes, which are separated at a predefined distance;  
and said hinge body component provides a passage for accepting said flexible electrical conductor means.
- 35 12. The electric device according to claim 11, wherein a total pivot angle results from summation of individual pivot angles, about which each respective pivot axis is pivoted.

13. The electric device according to claim 11, wherein each pivot axis is pivoted independently.

5 14. The electric device according to claim 11, wherein said bending of said flexible electrical conductor means is obtained in a plane substantially perpendicular to said pivot axes.

15. The electric device according to claim 11, further comprising:

10 - an inner hinge cover component;  
wherein said inner hinge cover component is designed to fit into said hinge body component such that said hinge body component in conjunction with said inner hinge cover component form said passage and said flexible electrical conductor means is enclosed by said hinge body component and said inner hinge cover component.

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16. The electric device according to claim 11, further comprising:

- a set of brackets;  
wherein said brackets are provided for being mounted to said at least two casing parts;  
20 wherein said brackets engage in said hinge body component such that said two pivot axes are established thereby.

25 17. The electric device according to claim 11, wherein said brackets have journal members which interact with journal acceptance members provided in the hinge body component to establish said pivot axes.

30 18. The electric device according to claim 11, wherein said flexible electrical conductor means are freely movable within said hinge mechanism to allow for compensation of shortening and extension of said flexible electrical conductor means caused by bending thereof due to pivoting.

35 19. The electric device according to claim 11, wherein said flexible electrical conductor means are routed substantially tangential to end portions of said hinge body component in a close position of said folding casing.

20. The electric device according to claim 11, wherein said flexible electrical conductor means are routed substantially at bending angles against end portions of said hinge body component in an open position of said folding casing; wherein said bending angles correspond to said individual pivot angles.

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21. The electric device according to claim 11 that is a portable electric terminal device.